



This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

- + *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.
- + *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.
- + *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.
- + *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at <http://books.google.com/>

F
2876
.D6

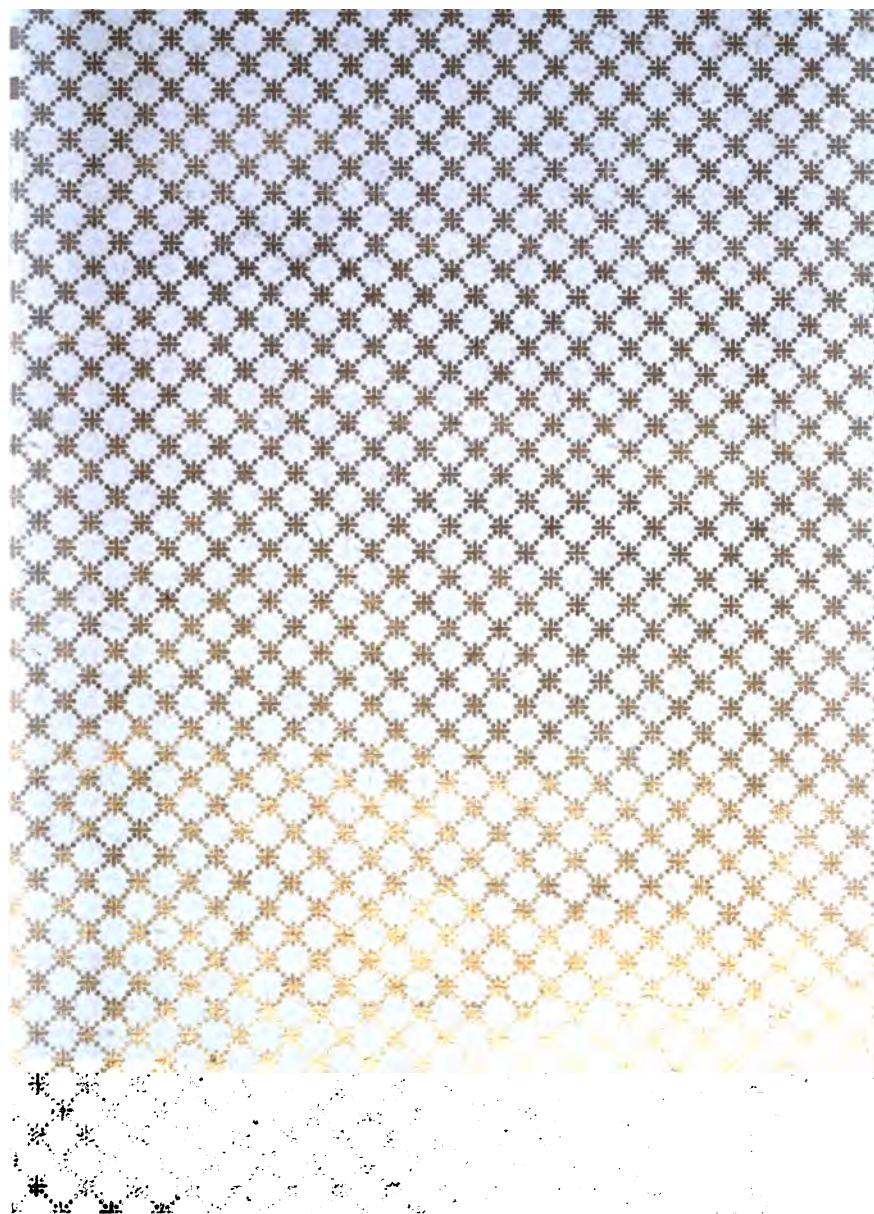
DOWN

THE

BERMEJO

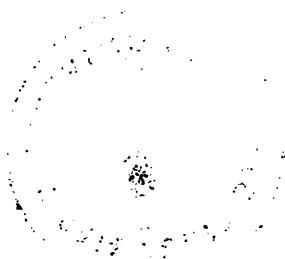
A. A. G. Dobson

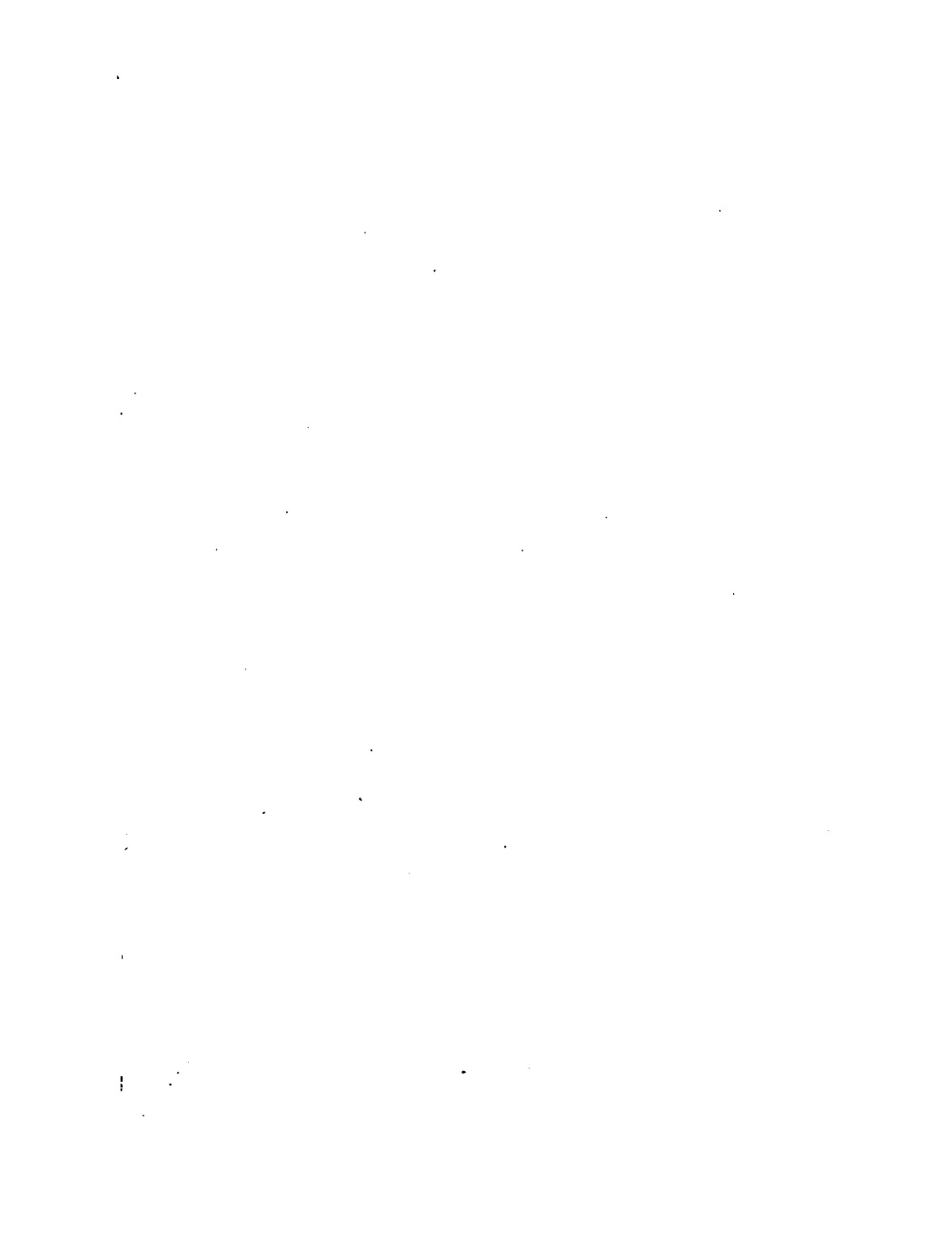






Henry P. Miles
La Chispa
1901







CORPSE OF AN INDIAN IN A YUCHAN TREE

Arthur Austin Greaves Dobson

A SHORT ACCOUNT OF THE LEACH BERMEJO
EXPEDITION OF 1899, WITH SOME REFERENCE TO THE
FLORA, FAUNA AND INDIAN TRIBES OF THE CHACO.

BY

H. H. G. Dobson



J. Smart.
Printer and Bookbinder
Buenos Aires
1900.

F2876

D6

CONTENTS

CHAPTER I.

INTRODUCTORY.	7
-----------------------	---

CHAPTER II.

THE FATEFUL PILCOMAYO.	15
--------------------------------	----

CHAPTER III.

PREPARATIONS.	23
-----------------------	----

CHAPTER IV.

THE START (Navigation of the San Francisco)	28
---	----

CHAPTER V.

WE ENTER THE BERMEJO (Flora and Fauna)	36
--	----

CHAPTER VI.

NAVIGATION OF THE TEUCO.—INDIANS . .	44
--------------------------------------	----

CHAPTER VII.

NAVIGATION OF THE TEUCO, <i>Cont.</i> —TIGERS	54
---	----

CHAPTER VIII.

WE RE-ENTER THE BERMEJO	62
-----------------------------------	----

CHAPTER IX.

HOME	70
----------------	----

Illustrations by Messrs. Holmberg and Garino.

5

6

"Han llegado los valientes exploradores encabezados por el intrépido Mr. Walter Leach, venciendo las mil dificultades amontonadas allí por la naturaleza, suficientes para abatir y rendir el ánimo del más fuerte, pero incapaces para detener el sentimiento del valer superior que poseen en grado eminente los hijos de Inglaterra."

"La Libertad", Corrientes.

Abril 1899.



CHAPTER I.

INTRODUCTORY

The Messrs. Leach are owners of a sugar factory, canefields, and coffee plantations, in the province of Jujuy in the Argentine Republic, and the river Bermejo has its source in the same province, in the Zenta mountains, traversing the great wilderness called the Gran Chaco, and finally flowing into the river Paraguay.

For a long time the Messrs. Leach had considered the possibility of being able to send their produce down the river Bermejo, and thereby save the railway freight for over a thousand miles.

Now with regard to the river Bermejo, not very much was known. Several expeditions had navigated portions of its waters: and it is certain

that the Jesuits * had reached its banks, when their power was paramount in Central South America.—But its shores are infested with savage, hostile Indians, and the whole district is therefore prohibitive to solitary colonists.

And of late years the river Bermejo had been reported as—"becoming dry". Had its waters been diverted into some other channel? Had its waters been diverted into an arm called the Teuco?

If little was known about the Bermejo, practically nothing was known about the Teuco. — Was the Teuco navigable? This was the question to be solved; and it was for this that the Messrs. Leach determined to make their expedition of 1899.

At the time, I was resident in Tucuman, in the neighbourhood of Jujuy, and having been appointed correspondent to the "River Plate Sport and Pastime" magazine, I started for the Messrs. Leach's factory, on the morning of the 1st of March 1899.

I began with a dusty train ride of nearly ten hours through the mountainous province of Salta.

That tiny speck high up in the sky is a magnificent Condor, loath to leave its mountain home.

Now we catch sight of the proud snow-clad

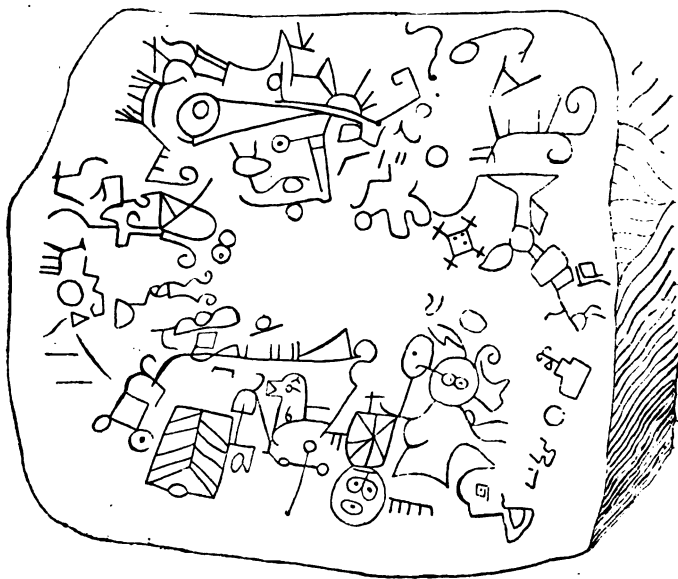
* The Jesuits reached localities in South America, in the 16th century, which even now, three hundred years later, are considered outside the pale of civilization. That they should have reached such places is almost incredible when one remembers that the difficulties of access must then have been so much greater.

Andine peaks far away over the neighbouring ranges, — mysterious ranges, full of strange pillars, tombs, and curious pictures cut deep into their granite rocks. — Picture drawing on unoccupied spaces, bye-the-bye, seems the favourite amusement of savages and—school boys.—But these records have been cut deep into the solid rock; they have been cut in a region where iron weapons are not known to have existed*; they are the records of some ancient race once inhabiting this new (?) world continent; records staring blindly into space calling for someone to unravel their secrets. There are places there too where the horseman may not pass, or his steed will fall a limp and shivering mass. It has been seized with the "*Tembladera*",† a disease which does not affect man but is fatal to mules and horses: they fall suddenly, and hopelessly, and the rider must continue his way on foot.

* Dr. Adan Quiroga has found bronze chisels in the mountains—"But could such soft tools," he says "have engraved the hard granite? It is clear that if pieces of stone could have been found harder than the rock upon which it was wished to engrave, they could have been used for the purpose. — So what the Indians commenced their work with was probably a chisel of silix or quartz. Once the surface of the rock was broken, and the outlines of the figures traced, then they could have employed their bronze chisels to deepen, and to improve. (*Trans.*)

The sign of the cross that appears so frequently in these pictures can of course have no connection with Christianity.

† Possibly caused by Antimony fumes?



Picture-Writing on rock

From a drawing in the collection
of Dr. Adán Quiroga author of "Mito-
logia Calchaquí".

Towards evening we arrived at the station of Pampa-Blanca, and I found a light three-horsed carriage waiting to take me to the factory.—Already it was getting dark, and a hard drive of two hours brought us to the farm (*finca*) where we were to pass the night. The owner could talk of nothing but the various persons who had gone through to take part in the expedition. He shewed me the Argentine lieutenant's sword and uniform, sorrowfully parted with; but it was important to give rise to no rumours of ours being a *military* expedition.—A uniform is a red rag to the Chaco Indians.—Unhappy is the soldier who falls into their hands; and they have suffered much at his. "You will all be killed," said my host,—“more's the pity, every one.” But we ran that risk anywhere. I ought to have said I had a case of two hundred rockets with me in the coach, and was very much afraid of an explosion. I tried to frighten the coachman into driving carefully, by tales of persons scattered into little bits, but then—he wanted to throw them out! And the country was irregular enough too: in one place I had to hold on. “Waggoners with sugar were sometimes killed here,” he said,—“but they *will* drink too much caña.” And then we reached a river, a shallow rapid torrent distributed over a plain of porphyrous boulders*. It surprised me

* A white granular quartz.

to hear that persons were constantly drowned in crossing. A case even occurred during my stay, although it could not have been more than three feet deep anywhere. The natives will wait for weeks before attempting. The man who is seized with giddiness at the whirling eddies, or whose horse stumbles, once down, can never regain his footing, and is junketed along from boulder to boulder, from stone to stone, until at length his lifeless body is washed ashore.

At the factory I soon made the acquaintance of those who were to take part in the expedition —

Mr. Walter Leach is to be in charge. Mr. Leach is from Lancashire. The firm of Messrs. Leach Bros. and Co. has been established at Esperanza for about 13 years. Mr. Walter Leach has especially made a study of the languages and folklore of the Indian tribes of the Chaco. He has had the opportunity of doing so, since the firm employs several thousand Indians annually in the harvests. He is very much esteemed by them, and always sought for by them in their difficulties, and for this reason he has been especially chosen to conduct the expedition.

Mr. R. M. Smyth, or "Johnnie Smyth" as he is called, is one of the Messrs Leach's estate agents. He is an originator of the enterprise, and the one, perhaps who has it most at heart. He is well

accustomed to the climate of the district, and to an open air life. His special duty will be to hurry everybody up, regardless of their comfort, or their —feelings.

Captain Bolland of the British mercantile marine has been appointed by the Messrs. Leach to undertake the navigating duties of the expedition. Captain Bolland has a perfect knowledge of the tides, currents, and dangers, of the swift, shallow, rivers of South America. He is a well-known pilot of the Parana, and is one of the few persons who have penetrated to the magnificent Iguazu falls of the upper Parana, said even to surpass Niagara.

Captain Zorilla Prefect of the Port of Resistencia is a naval officer deputed by the Argentine National Government to accompany us. He has been attached to military excursions into the Chaco, and has made important explorations of the river Pilcomayo, situated to the North of the Bermejo. He has a knowledge of the Indian tribes of the region, and of the flora and fauna; and is a valuable acquisition to our party.

Dr. Paterson is the surgeon in residence on the estate, and accompanies us in case his professional services be required.

Mr. Clunie like Mr. Smyth is well-known in Buenos Aires sporting circles, and is to undertake the duties of Storekeeper to the expedition.

Mr. W. Campbell is a young gentleman who makes a hobby of travel, and has already made expeditions both in Africa and in Patagonia.

Mr. Scott holds a commission in the Argentine National Guards, and is to act as keeper of arms and ammunition.

Messrs. Miles and Kay are from "up country". Mr. Miles is a well known "wicket-keeper" who has been "keeping" for the Argentine "North" cricket team.

Lieutenant Pellegrini belongs to the mountain regiment stationed at Salta. Messrs Kage, and Elstrang, are engineers lately employed on railway surveys in the neighbourhood, and Messrs. Stott, Barton, Butterworth, Brierly, Hartley, Clayton, and Leturía, are employees at the Messrs. Leach's factory. Several peons, or native workmen make up the number,—thirty-five persons in all.

CHAPTER II.

"The paths of glory lead but to the grave."

Gray.

Hitherto exploration had been directed rather to the river Pilcomayo, situated about a hundred miles north of the Bermejo, and following a parallel course.

It may be that that river was thought the more direct route to Bolivia, * —to open up the *mines* of which, has long been a problem ;—but a curse seems to overhang its dark waters, and nearly all who have tried to solve its secrets, have perished in the attempt. The very fact of valuable lives having been lost, will only, unhappily, draw more to share their fate,—such is the idiosyncrasy of exploration,—such is the caprice of "La belle dame sans merci", the cruel goddess of adventure that lures them to destruction.

One of the first persons to attempt the exploration of the river was Dr. Julio Crevaux.

* The Bolivian government at one time offered 40 leagues of land to the person who would open up the Pilcomayo.

Dr. Crevaux arrived in Buenos Aires at the beginning of 1882, commissioned by the French government to make various explorations in the continent of South America. Under auspices of the *Instituto Geografico Argentino*, he set out for the Bolivian frontier, and, on the 13th April, of the same year, embarked with his party in three canoes on the river Pilcomayo, near the settlement of San Antonio, with the intention of following the course of that river, and deciding definitely the question of its navigability. Dr. Crevaux was accompanied by Dr. Rillet, Mons. Ringel, and sixteen other persons. They carried a small amount of provisions, a quantity of knicknacks and trinkets, as presents to the Indians, and each man was provided with 300 rounds of ammunition, since the district through which they were to pass was known to be infested with hostile savages.

For seven or eight days all went well; they reached a locality called Teyu, held a "palaver" with some Indian (*Toba*) chieftains, gave them presents, and in return received assurance of goodwill, and friendship. When about five leagues further on they were hailed from the shore by the same Indians. "Some more chiefs had arrived," they said, "who wanted to declare their friendship." Dr. Crevaux ordered the boats to put in. The whole party landed, with the exception of four persons

who remained in the boats, and he began to distribute presents according to his custom.—“Why should we have these things doled out to us?” suddenly said an Indian who appeared to be Chief, (*cacique*), in his own language to those about him, “Would it not be better to kill these men and take the lot?” He gave a shrill cry like a forest bird,—“innumerable” savages leapt from behind the trees.—Crevaux and his party were unarmed, and in a moment they were overpowered, and beaten to death with clubs.

The four men who had remained in the boats jumped out, and took to the water;—two were killed at the river's edge, and the other two, being more “skilful” at swimming than the Indians; reached the opposite bank, and escaped into the forest. Only the interpreter was spared, as, being himself an Indian, he probably passed unnoticed.

Lieutenant-Colonel Fontana was despatched by the Argentine government, with an armed force, to find the bodies, but was unsuccessful; and it was not until the following year that a detailed account of the terrible tragedy was received from the interpreter of the party, who at length found his way back to Bolivia.—“The Indians,” he said, “put Crevaux' body into a hut and remained singing and shouting round it all night.” He could tell no more. We know that the Indians mutilate the dead

bodies of their enemies,—his remains were never found. As for the two men who escaped into the forest—their end could only have been prolonged, for neither has since been heard of. Such is the sad story of Crevaux' attempt.

A period of eight years must now be passed over. In the month of February 1890. Captain John Page of the Argentine Navy, started at the mouth of the Pilcomayo, with the intention of pushing upstream and finding the long-looked-for water-way to Bolivia. Captain Page acted on behalf of a British syndicate, and was embarked in a specially constructed steamboat sixty feet long, of very shallow draught. He was accompanied by his son, by an Italian surgeon, and by eight other persons; besides fifty soldiers who were to march by land, and be at hand in case of any trouble with the Indians.

Very soon after the commencement of the journey, the river became so choked with vegetation that a passage actually had to be hewn to allow the boat to pass. To make matters worse the water got shallower, and it was necessary continually to bank up the river in order to let sufficient water collect for the boat to float. Then provisions came to an end,—game was so terribly scarce, and the stagnant water had given them dysentery. Captain Page himself was worst.

But "turn back never." "His duty," he said "was with the boat, and with the boat he would remain." So he decided to send back the soldiers for food and medicine, and then waited and waited. —A second party was despatched, but that party did not return either. Captain Page grew weaker. —Prized indeed were the few deer or monkeys that fell to the rifles of his companions. At length Dr. Vinales (himself too to die), took the authority of a Physician to a patient, and insisted on the sick man's return. So the Captain was put into a canoe, with two men to accompany him, and started on his homeward voyage, after having been six months away. For ten days he held out, the village of Port Pilcomayo was at hand but just too late, and he died, almost within sight of the river's mouth.

Captain Page's son pushed up stream as far as the great meres called Estero Patiño, on foot and in canoes, and eight months afterwards brought back the steamboat, and returned it to the syndicate,—thus fulfilling his dead father's duty.

Dr. Vinales, had in the meanwhile, also succumbed to his privations—another victim of the fateful river.

Last year two further disasters were added to the sad list. Sr. Lista the brilliant and intrepid Argentine naturalist was murdered, almost within sight of its waters. He had started alone, accompanied

only by two native servants (peons) to attempt the exploration, intending to follow the same route as Crevaux. Soon after leaving Oran, the most northern town of importance in this Republic, he complained of an unquenchable thirst; instructing his men to dig a well, he lay down in the shade to rest.—Then it was, that one of his peons stole up behind him, and blew out his brains with a revolver. The cruel crime had of course been pre-arranged. The money that the unfortunate explorer was *supposed* to have about him was the incentive; and the locality especially favourable, since the murderer could easily make his escape over the Bolivian frontier.

The fate of Sr. Ibarreta, who left San Antonio in May 1898, with ten men, on a similar plan of navigating the river, is obscure. On the 29th of June, when he should have been near the site of Crevaux' disaster, rumours reached San Antonio of the massacre of the whole party and, from that date until the month of December of the same year, no farther news was heard of him. Then two men of the party suddenly turned up in the town of Asuncion de Paraguay and this was their story.

For 4 months Ibarreta had pushed on, the river was choked with vegetation, often they had to descend rapids, and once a cataract several yards in height. Indians followed them the whole time

armed with "great lances and arrows" in such numbers that they were obliged to explode little bombs of dynamite in the water to terrify them.

In September they reached the great meres of Patiño, and here provisions failed them. Ibarreta determined to send his men on by land for fresh supplies. "Himself," he said, "would stay, since he had sworn to reach the river's mouth in his canoe." Two of the men stopped with him, and the rest started on a terrible journey through the desolate Chaco. First one fell behind, then another, another died of fever, the next could march no further — a comrade stayed with him, and only two of the party finally found their way back to Formosa after having wandered for more than four months in the forest. "We killed two lions, (?) they said, "several guanacos, and a boa; but what we suffered most from was want of water." On one occasion they were 36 hours without it, until they managed to scrape a little well with their knives in the ground and take turns to drink the muddy water that trickled in by drops. At last they struck a trail of horses that led them to a camp of Indians, who "treated them kindly" and set them in the right direction.

Captain Montero sub-prefect of the port of Formosa started by water, in search of Ibarreta, but was unable to proceed high enough up the

river in consequence of the drought. Then Lieutenant-Colonel Bouchard was ordered by the Argentine government to make an expedition, by land, in search of him. He set out with thirty soldiers and pushed right to the very shores of the Patiño marshes. Here he received information of the explorer's murder by a tribe of Toba indians whom he at once attacked, killing the cacique, or chieftain, named Damongay, and obtaining possession of Ibarreta's hat and bloodstained cloak; but the body he could not find—the Indians had killed him and his two companions, it was said, with hatchets as they lay asleep under a tree.

It is gratifying to think that the gallant explorer had already in the main fulfilled his task, for he had traversed the darkest and most mysterious part of that fateful river, namely the part between the site of Crevaux' tragedy and the Patiño merès, the rest of his journey would have been easier, the rest of the river had been explored by Page and by others, and would have been accomplished with far less risk, and with far less labour.

Since writing the above, a skull has been on view at the "Instituto Geografico Argentino" which was brought from the region in which Ibarreta was last heard of. It has the prominent chin of the explorer, and a tooth in the lower jaw has a metal filling. The top of the skull is completely shattered.

CHAPTER III.

PREPARATIONS

The Argentine National Government had given three flat-bottomed boats, each 22 feet long, for our enterprise, and the Messrs. Leach had constructed two larger ones, of the cutter type, in their own workshops, each 30 feet long. All the boats had to be propelled by sails or by oars, but it was probable the current of the river would prohibit the use of the former.

A small river called the San Francisco passed close to the factory, and flowed into the Bermejo about 50 leagues further on.— It was our intention to proceed by that river to the Bermejo.

Three of the boats had already been sent forward to a spot on the river San Francisco, called Sora, near the Messrs. Leach's farm of San Lorenzo. At that point we proposed to make a camp for several days, and thoroughly overhaul the boats and provisions before embarking.

On the 4th of March 1899 we loaded the two boats still remaining at the factory, on waggons, and started on horseback for the nearest point of

the San Francisco situated about four leagues distant. It seems strange that we should have had bad luck on the very first day of our enterprise, for on arriving at the river, towards dusk, it became evident that the waggons with the boats and our supper, were not going to arrive that night.—Persons who have never waited more than an hour or two for their food, can have no idea how fatal is the loss of a meal at the end of a day's march. To make matters worse it had commenced to rain; and here we were, with wet ground, wet clothes, no blankets, and no food. So we lit a great fire, and someone by chance having a tin of tea, we passed that night as best we could, sleeping on our saddle-cloths. Nor was it until the evening of the next day that the waggons did arrive, and we were not consequently able to make a start till the morning after. By good luck we reached the Sora camp the same day, and found Mr. Smyth in occupation, with the rest of the boats, and the tents.

We were busy now sewing awnings, and preparing the boats for the voyage, while the carts kept straggling up with the provisions. There seemed a tremendous lot to stow away. We were carrying food enough for forty days. The want of provisions had caused former failure, and we intended to count on getting nothing on the voyage. We were taking

tinned meat, tinned vegetables, hard biscuits, rice, and oatmeal; whilst Yerba * (ILEX PARAGUAYENSIS) or paraguayana tea was the principal beverage we intended to allow ourselves.

The fate of Dr. Crevaux had made the Messrs. Leach careful to arm the party properly. Each member was provided with a Winchester repeating rifle No. 44, a revolver, and a machet, and cases containing no less than *ten thousand* cartridges were distributed amongst the boats.

During these preparations we had the opportunity of making excursions into the neighbourhood. At San Lorenzo we visited Mr. Smyth's garden. Mr. Smyth is an ardent horticulturist, and the warm, sub-tropical climate, has allowed him to make a paradise; the constant rain of the Jujuy summer keeps it green, and I shall not easily forget the San Lorenzo garden,—a bright and unexpected spot in a sombre forest-wrapped region. I saw rice, coffee, and tobacco growing in the neighbourhood, and also visited the Messrs. Leach's tanning factory close by. The coffee was giving exceedingly good results, and had a flavor quite equal to the most famous Asiatic productions. The tanning industry, I think, must have a future, once

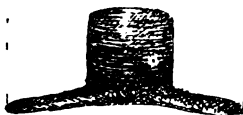
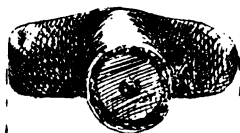
* Yerba is the Argentine national substitute for tea or coffee. It is a plant akin to the tonic Cuca of Peru.—Caffeine is its active principle.

cattle rearing goes ahead, as the timber necessary for the process is so plentiful—Sevilla, acacia, etc. In the meanwhile it is only one of the many evidences of that sound and economical enterprise that has already made the Messrs. Leach the leading house of Jujuy and Salta. In the months of the sugar harvest they must kill ten or fifteen oxen per day, and the hides are forthwith turned into leather on the premises.

I saw several persons in the neighbourhood suffering from the Brazilian disease of the throat called goitre, and also remarked upon the many instances in which persons had received injury to one or both of their eyes. The injury had been caused, I suppose, by the thorns or the branches, as they rode very quickly through the forest, as is the custom of these country-people, and which they will do at a speed almost incredible to strangers.

At the Ledesma sugar factory we were welcomed by Mr. Stuart the energetic manager, and had the good fortune to find a number of Indians had just arrived from the Chaco to work in the sugar harvest. They had made themselves shelters according to their custom, by piling dried grass upon frames of sticks, like haycocks in an English meadow, and sat staring stolidly out at us, as we passed. Later on I saw two hundred more come

in. They marched past silently in a long single file, — the men proudly with their bows and arrows, lances, and clubs, and the little short women, staggering * under the weight of loads, and children, with difficulty keeping up at a run. I shall



Tembetta (full size)

describe them fully later on, and shall only refer now to a curious ornament worn by the Chiriguano Indians from Bolivia, a tribe we shall not meet with again. It is a small metal block called "Tembetta" which is worn like a stud, in a round hole in the lower lip, about the size of a sixpence. Should the wearer lose it a wooden stop must replace it, or else, he would have difficulty in keeping liquid in his mouth.

A similar ornament is worn by some of the tribes of Central America.

* The Indian women have their feet turned in to such a degree as quite to walk upon the sides, and this gives them the appearance of a very awkward gait, when moving fast.

CHAPTER IV.

THE START

NAVIGATION OF THE SAN FRANCISCO

March 13th (Mid-day). Now we are really off. One by one the boats cast away, and a wondering crowd, that has been collecting during the past few days, from neighbouring farms and factories, bid us farewell. Boat No. 1 "the Ledesma" leads the way, with Captain Bolland, Captain Zorilla, the Doctor, and four other persons on board; then comes No. 2, the "Esperanza," with Mr. Walter Leach and eight persons on board; next comes No. 3, the "Sora," with Mr. Miles and four persons, including the author; next No. 4, the "Bertha," with Mr. Smyth and eight others; and last of all No. 5, the "Lavayen," with Mr. Campbell and six persons.

No. 1 gets stuck on a sandbank almost directly, and hoists a blue flag, according to arrangement—"Don't follow in this course". No. 2 swings

round to clear, and is nearly swamped. — So we go on.

Each boat has a code of flag signals, bye-the-bye,—but it never seems at hand when wanted. “Red and white flag” shouts our lookout,—a scrimmage ensues, somebody gets hold of the code and reads,—“fire.” We pounce upon the rifles. Where are the Indians? Then he, (the lookout), finds he meant—“Red *flag* and white flag,” which is to say—“Find landing place.”

Then another signal goes up—“Article overboard, pick up if possible,” and a moment later one of the dingies, that each of the two larger boats has in tow, comes floating down, keel upwards. We heave out our anchor, and plunge into the water. The dingey has been stove in and is useless, so we cut clear a case of rockets she contains, and hoist it into our own boat. But a lot of cooking apparatus has been lost, and the rockets prove to be soaked, so we have to throw them away.

March 15th.—To-day we have to abandon the second dingey we have in tow. The current is so strong, * and steering so difficult, that it is as much as each boat can do to look after itself. To

* We estimated the current to have been running at the rate of 4 or 5 miles per hour.

make matters worse the river is shallow, and full of snags and sandbanks. At any moment we find ourselves stranded without warning. Then we must jump out and push till the boat clears. Or else, one of the other boats will be stuck beyond the efforts of her own crew, and we have to anchor, and wade off to the rescue. This is a duty not without danger, apart from the chance of the boat swinging suddenly free and dragging someone beneath her for the river is full of fish, *raya* and *palometa*, fish greatly dreaded by the Indians, rivalling each other in the severity of the wounds they can inflict, one with its sharp teeth, and the other with its poisonous spines. Our clothes are never dry. We have no time for a change, and we soon find it most convenient to wear hardly anything.

The river is about 80 yards wide. Magnificent forest fringes the sides, dense and dark, giving a great air of mystery to our surroundings; - but there is no sign of life, and on, on we go, unconscious of man or beast, that *may* be watching us between the trees. Higher up, the river had a stoney bottom, but now it is all mud and sand; and the current is eating into the banks with appalling rapidity. The trees are constantly falling, as the ground is washed away. At night I hear them crashing into the water like thunder, and a voice from one

of the other boats will shout out and warn us as they come sweeping by.

If the weather is fine we can sleep on shore. We cut some dried grass with our machetes, and rig up our mosquito curtains on the branches of the trees. An hour before daybreak the camp begins to move, we drink our maté by the grey half-light of dawn, and, as the sun begins to shew itself upon the horizon, the boats move off silently on the day's journey. We push forward steadily for 4, or 5 hours, and then we land for a meal of cold meat, cheese, and maté, when Captain Bolland rigs up his instruments to take our position. Woe-betide the man whose shadow crosses him, or whose blundering footfall shakes the mercury horizon. Where are we? What distance have we made? But these are weighty questions, and confidences not to be lightly imparted, so we look on, wonder, and feel our littleness.

On one occasion, when landing, we were surrounded by a crowd of Indians. Some of the men wore hats and trowsers, (ours were hanging out to dry), and they were all armed with bows and arrows, and lances. They kept coming up in such numbers that a flag signal was hoisted "Prepare arms without demonstration." But someone took a photograph, and that was enough,—they turned tail and fled. We found they were travelling in-

side to work in the sugar harvest, and had already been many weeks on the road.

The same afternoon boat No. 4 got hopelessly stuck on a sandbank, and eventually had to be unloaded and hauled out by ropes. All the boats had gone the same way, except ours, No. 3, that had been carried down the *other* side of the island, (against our will), by the current; so Mr. Leach signalled to us to stop where we were, and we sat and watched the others working without being able to help them. Such periods of enforced idleness let us feel how hot it really was. I remember, how, when I was formerly engaged on a railway survey, the men always asked to be allowed to work on Sundays, rather than remain in the tents all day doing nothing. I suppose the profuse perspiration of labour relieves one; now all the boards seemed to burn, everything was scorching, and we kept swallowing down pint after pint of the hard muddy water, till at last darkness came on, and we turned in, and spent that night apart from the others.

March 17th.—Have our first serious disaster to-day. I was helping to push off boat No. 2, when somebody said—"there goes No. 5," and sure enough, a minute later, it came racing down, keel upwards, caught in a huge moving snag. Mr. Campbell, the Captain, was seated on the wreck—

bent on sticking to that anyhow. But where were the crew? Casks, packages, and bundles of clothes were hurrying past in all directions—Some of us started off in pursuit of the latter, and the rest waded down to where the wreck brought up on a sandbank. We were up to our waists in water. We could hardly stand against the current. We were half-cramped with cold. We had made ropes fast to the wreck, to prevent it drifting further, and we tried to cut clear the snag. We had to work as fast as possible, for the shifting sand was always banking up the boat. Often someone would get jammed in the branches of the snag, by the force of the water, and the flood sweep over him; and two men were carried half a mile down stream attempting to wade to the scene of action.

When at last we did manage to right the boat, it was found she had not suffered very much herself, but rifles, revolvers, ammunition, tinned meat, and other small articles were hopelessly lost—It was our first disaster.—How many more were we to have?

March 19th.—At last we reach the junction of the San Francisco with the Bermejo,—Las Juntas; or we reach more properly a spot called La Peña about two leagues distant. Here there is a small store, and we decide to remain a couple of days in order to bake fresh biscuits in place of those

lost in the No. 5 disaster. We are all glad of the rest, and most of us really in need of it. Several are ill with the ague (*chuchu*)—evil of the district, the recent exposure, and the bad weather have brought it on, and the chances of recovery are minimized, when one must move on daily, wet or fine, and pass his whole time in soaked clothes.—We nearly all suffered from it at times.

It is certainly a lonely store this of La Peña, and the owner does business chiefly with the Chaco Indians, who pass on their way to the Salta and Jujuy sugar harvests, exchanging the hides and skins they bring along with them, for tobacco, cigarettes and ponchos, etc. We drank a great deal of his gin, (gin, topboots, sardin-s and ponchos were his stock-in-trade), and he celebrated the occasion by constantly sampling his own liquor. It certainly was an occasion for him, and he made the best of it,—we left him wishing us luck in a hazy voice.

But his is a lonely, and dangerous life, for uncertain gain. Yet, there are many such as he in the vast "grassy ocean" of the South American pampas. Their store stands a solitary speck in the setting sun, and is the club-house, bank, justice hall, and reading room of a hundred miles radius.

Here we must bid good-bye to Mr. Stephen Leach, (we shall sadly miss his assistance) and Mr. Stuart

of Ledesma, who have accompanied us so far. To-morrow we shall enter the strange waters of the Bermejo, and now our journey is really to begin.

CHAPTER V.

WE ENTER THE BERMEJO

*There is a pleasure in the pathless woods
There is a rapture in the lonely shore.*

Byron

March 22nd. We have entered the tropical zone, and the confines of the Great Chaco. The word Bermejo, or Vermejo, means vermillion,—and the river certainly has got a reddish hue. The colour seems permanent; unlike that of the Egyptian Nile, which is periodical, dependent upon a minute red plant swept down in quantities sufficient to tinge the water; and here, it is probably due to the red pampean mud, or the colouring matter of the hardwood trees on the shore.

In some places I find the river nearly a mile wide, for its low banks are flooded. But the water is deeper at last. It is the exception now for our boats to get stranded. We are congratulating ourselves that we shall not have to keep jumping out into the water any more to push, and on the anticipation of being able to row in dry clothes.

Alternate patches of Forest, Jungle, and Bobo line the shore. Bobo (*BACCHARIS* SP.) is of striking appearance and apparently indigenous to Jujuy. It is something like the poplar, growing in dense plantations, tall and slender, like enchanted groves of fairyland. Suncho (*BACHOCRIS SALICIFOLIA*) like the osier, but too brittle for basket-making, is a principal constituent of the Jungle. I see grass growing rank and luxuriously in many places, and think that there must be a great future for the district as a cattle country. Forest however predominates, consisting of the valuable hardwood trees for which the province is famous,—Quebracho Cedar, Tusca (acacia). Urunday, Pacara and Moro * all timbers of great commercial importance. I have seen the massive Algarroba tree, pride of the Indian tribes, and the sweet scented Palo-Santo, of such value for furniture making. But most conspicuous is the curious Yuchan tree (*BOMBACEA*) with its trunk shaped like a pear or a pine apple, enormously thick near the base, and becoming thin again at the top. The cotton it produces is not of commercial value as the staples are too short, but the wood is soft and cork-like, and the whole shape peculiarly adapted to the making of

* These are all native or criollo names

canoes, for which purpose the Indians employ it. The bright yellow blossom of the Urunday relieves the eye. The San Antonio tree, whose little round nuts are used for the beads of catholic ladies' rosaries, reminds us of duties left undone. The tall cactus stretches its spidery branches to the sky; and the larger leaves in between the willow trees (*sauce*) near the waters edge, belong to the castor oil plant (*tartago*), or wild fig.

As we continue our way I notice the forest becoming veiled with creepers. I notice one (*Tazzo or Fax MORRHENIO-BRACHYSTEPHANA*) whose large almond-shaped fruit is sought for, both by Indians and Argentines, on account of its medicinal properties; and another with bright clusters of vermillion berries, locally called *Uvas del diablo* (Devil's grapes).—Such wild entangled growth seems to me expressive of great solitude, and primeval nature,—the fit abode of fierce animals, and a savage people.

We constantly see the capybara or river-pig (*carpincho*), largest living rodent,—bigger than a hog. It inhabits the banks of the river, plunging into the water when disturbed,—or like the proverbial "out of the frying-pan into the fire," only escapes the Jaguar to tumble into the jaws of an alligator.

Alligators (*yacaré*) are equally plentiful, notwithstanding that we have seen few individuals, for the flood season of the river has driven them to the lagoons inland. Once however we did see one quite as close as we wished, for we landed right on the top of it, as it lay there basking and motionless like a log. We all fired with rifles and revolvers, but it slid off quietly into the water; which makes me think after all that alligator hide *is* impervious to bullets. It is at the edge of the river that the alligator is feared by the natives of Central America, who bathe fearlessly in deep water, and a gentleman from the West Indies has told me that domestic dogs in that country learn to run backwards and forwards along the bank, trying to flurry the alligators before venturing to drink.

I have examined a specimen of the bird Toucan (*RHAMPHASTOS TOCO*), not met with, I think, at a higher latitude. This bird has perhaps the largest beak extant in relation to its size. The one I examined, although the bird itself was no larger than a parrot, had a beak at least four inches long, and one inch deep,—“Looking,” says Mr. Kingsley, “made for the purpose of swallowing bananas whole,”—but it was hollow, and so light as not to be anything like the unwieldy nuisance that it looked.

A semi-tropical tree-duck (probably *pata-real* muscovy duck), with claws to its webbed feet, is the unnatural inhabitant of the trees, and I have also seen black vultures (*cuervo* CATHARTES ATRATUS) a species related to the magnificent Condor of the Andine ranges. The Bandurria bird (FALCINELLUS GUARAUNA), takes its winged course along the water, flights of cuervilla skim the surface like flying fish, and the well-known Carrancha of the Buenos Aires pampas, guards these northern shores as jealously as it does the south.

Chief amongst wading-birds is the monstrous Jabiru (*Tu-yu-yu-corral* MYCTERIA AMERICANA). It is a white bird, four feet high, with a black head, and a red collar round its throat, (whence the local name), and is cousin to the better known Adjutant bird of India. The snow-white Egret, whose so-called "osprey" feathers will fetch as much as £ 10 sterling an ounce—the weight of six bird's tails,—is here left unmolested, the pretty pink Spoonbill watches us warily at a distance, and the Heron and the Stork are ever standing solemnly in shallow places.

But all our difficulties are not at an end, and the misfortune that continues to befall us now, is to take a wrong channel. For the river, as I have said, is in flood, and full of sandbanks, and small

islands. Often we find our way barred, and then we have to retrace our steps slowly and laboriously, hauling back the boats against the current with ropes. On one occasion we reached a point where we encountered heavy waves, for the water stretched wide on either side, and a strong wind was blowing. The place unfortunately was shallow; the boats kept bumping the bottom as they tossed up and down, and all the casks and packages rolled about. No 4 in particular narrowly escaped foundering, for the mast fell from above,—knocked a man overboard, and prevented the others from clearing their oars. “Keep your heads,” shouted Mr. Smyth the Captain, as they raced along with the current “Keep your heads,” he shouted, and with the steering oar tried to put the boat’s head to the waves, while the crew struggled to get the mast into place again, and rescue the man. Then, we would be carried suddenly into the bank, by the current, where the river made a sudden bend, the usual destination of someone who wanted to “try his hand” at steering,—and we would get caught in the roots, and branches of the overhanging trees. The crew of the unhappy boat that got into the difficulty always got chaffed about their “birds nesting” expedition at evening, when Mr. Clunie, our genial storekeeper served out grog, or we took our maté,

and olla-podrida round the camp-fire. Meal-time by the bye has become an anxious moment since boat No. 5's disaster, and when the cry to "Victuals" is heard through the camp we clutch jealously at our spoons and plates. For by some oversight we have only brought away the exact number of these articles required, with none to spare, and we must now keep a pretty sharp lookout on the crew of No. 5 who have lost their own in the calamity. You will always find one of them standing hungrily beside you during the meal, waiting to reach for your plate the moment you have finished.—But in spite of precautions the spoons and plates will go. Our Indian cook Antonio, who has, by necessity, to be occupied at this important moment, has been robbed long ago. "It was not the losing of them," he said, as he flourished the soup ladle, "that was bitter, but the thought that he must be the associate of companions who would take such a mean advantage."

March 26th (evening). We have anchored on a sandy ridge, and must now be somewhere near the place where the Teuco branches off from the Bermejo. We have anchored at a safe distance from the cliff that flanks the shore, for great masses of earth keep falling down as the water undermines

the base. The owner of a lonely *rancho* on the top, uncomfortably near the edge, has chosen this very day to move his household goods. He used to be a league inland once, he told us, but the water was "always getting nearer." This habit of migration is the special privilege of South American rivers, which will often change their entire course in a single flood. It reminds me of the lawsuit two Tucuman gentlemen had about their neighbouring properties. The river that separated them had changed its course and encroached upon the land of one, whereupon the other claimed the land encroached upon. In the meanwhile the river changed its course again and encroached upon the land of the latter. "Your claim is just," said the defendant,—*"The river shall be the boundary."*

CHAPTER VI.

NAVIGATION OF THE TEUCO

(INDIANS)

March 30th. This morning it began to rain just after starting, so we put in to shore, got out the boat covers, and sat shivering in our wet clothes. Soon Mr. Smyth came along in his oilskins "You must get a move on," he said, (Smyth was very often more forcible than polite in his expressions), "the men are perishing with cold, the rain going to last, and no good stopping here all day like this." Orders were to spread out the tarpaulins over the goods, sit on the top, and row like mad. So we went on ahead in the pouring rain.

We are now well into the Teuco (from the mataco word *Teuch* meaning river). The Teuco is the arm of the Bermejo which, as I have said, it is our intention specially to explore. The route by Bermejo proper is almost dry, and it is on the Teuco therefore that we build our hopes for the passage through.

The village of Rivadavia, farthest western garrison, lies behind us to the south; we have passed the settlement of Luna Muerta, we have passed the estancia called Puesta de la Isla, we have reached the rancho on the site of the old Fort Belgrano. We shall see no more dwellings now; we are entering the Indian territory proper; and at night when we tie our boats up to shore, we must keep careful watch in case of any attack or surprise from the Indians. We have two sentries, changed every two hours, who have to patrol the shore, in front of the boats. The duty is not a pleasant one, (particularly as the sentries have been warned that if they rouse the camp *unnecessarily*, they will be treated quite as badly as if they fell into the hands of the Indians).—Each wind seems the stirring of a crowd.—Each shadow seems a human form, and, as I stand in the silence of the midnight watch, I try not to think of the whistling arrow that may come at any moment from between the trees—the first deadly messenger of an Indian band.

April 1st. Yesterday we arrived at a deserted Indian village (*tolderia*) and afterwards we caught sight of several Indians disappearing quickly into the rushes. To-day we came upon an Indian fishing. He was so intent upon his occupation that he had not noticed us, and was terribly frightened when

he looked up. We persuaded him by signs to stop and speak to us, and he was recognised as an Indian who had formerly worked in the sugar harvest at the Messrs. Leachs' factory. I mention it, as, when one remembers that the factory La Esperanza was at least 300 miles away, an idea may be formed of the distance to which these tribes are capable of wandering. We made him understand that he must advise his people of our arrival, and later on a number of men, women, and children came down to visit us

Now with regard to the Indian tribes of the Chaco there are many,—the Matacos, the Tobas, the Orejudos, the Mocovitos, the Vilelas, the Guaycurus, etc. But as far as the river Bermejo is concerned we need only deal with the first two.—The Matacos inhabiting the upper portion of the river; and Tobas inhabiting the lower portion.

The Indians we now saw belonged to a tribe of Matacos. The Mataco Indian stands about 5 feet 6 inches in height, and in this respect is much inferior to the Toba, of whom he lives in great dread, and with whom he engages in constant warfare. His skin is brown, his head is large, and his features are flat. Black glossy locks hang to his shoulder, but a complete absence of hair on the face is apparent. Such hair indeed as does appear he at once scrapes off, or plucks

out by the roots. It is a custom for which there must be some reason or tradition; perhaps he thinks it the distinguishing mark between himself and the lower brutes? Anyhow he does not allow it to remain, and I can add with regard to the practice that small metal tongs have been found in the tombs of the ancient, and more civilized tribes of the Andine mountains, which were used for the purpose.

He smears a red pigment upon his face and body, especially upon the occasion of engaging either in love or war, and the little lizard-skin rings he was wearing upon his fingers are charms against disease and other ills,—not emblems of the hymeneal state.

The women of the tribes are short and thick,—seldom, I should think, over 5 feet in height. They probably mature at a very early age, and nearly all those we saw were carrying children at the breast, supported by means of a sling made from the fibre of the wild pine-apple plant (*chaguar* **BROMELIA SERRA**). A cloth of the same material was hanging from the waist, and reaching to below the knee, which, with a little necklace of such shells, or pieces of shell as they had been able to find in the river, constituted their whole attire.



— Shell necklaces —

Each family lives in a shelter called a "*toldo*," which I have already referred to as made by piling dry grass upon a frame of sticks. A number of such toldos are built close together, for greater security, forming a circle; in the centre they keep their cattle, water, and provisions, etc., and the whole is called a "*tolderia*."

Constantly living in fear of an attack, they train dogs, and even birds (crested screamers *chajas* CHAUNA CHAVARIA of the bustard family), to warn them of danger. When obliged to leave a "*tolderia*", which they do either when they have hunted out the district, or when an epidemic of small-pox * (scourge of the Indian tribes) breaks out, they burn it.

* Doctor Paterson told me that numbers of Indians die of small-pox even when at work in the sugar factory. They refuse his remedies having apparently as little faith in them as he has in theirs.

It may be this nomadic life that has prevented them from becoming adepts in any form of manufacture. They know neither to work in metal or in clay: their arrows and lances are only made of hardwood, and the long thorns of the vinal (*PROSOPIS RUSIFOLIA*) serve them in the place of nails or needles. They are skilful only in making small bags, and thick shirts from a twine manufactured out of the chaguar-leaf fibre already referred to. The former each wears at his side to contain the fruits, roots and small articles of his simple life, and the latter he wears in battle as a defence against the weapons of his foes.

I have seen burnt trees in many places and am told that the Indians fire the forest in order to hunt the wild animals it may contain. Nevertheless, flesh, I think, must be to them a luxury, in consequence of the extraordinary scarcity of mammalia in the Chaco—a circumstance which has been remarked upon by many travellers and for which it seems difficult to find a satisfactory reason.

The Indians are therefore obliged, from necessity, to depend chiefly upon fruit and fish for their existence. The Algarroba tree (*PROSOPIS ALGARROBA*) is their chief support; from its fruit they make a kind of bread and also an intoxicating liquor called *aloja*, by the very disgusting process

of chewing, and expectorating unto a wooden vessel, where it is left to ferment. When this fruit, or the fruit of the Chañar, or the Mistol, or the Mandioca root, is not in season, they must depend almost entirely upon the fish they are able to catch with their nets in the lagoons and rivers, and it is, I think, a general scarcity of food which prevents them from ever congregating in very large numbers in the same place.

The whole Indian population of the Chaco has been estimated at about 50,000 persons. A similar tract of land in some parts of Africa might contain 7 or 8 times this number. It is true that animal life there is much more plentiful; but I think that the reason for a *large* population in any land will rather be found in the fact that the inhabitants of savage countries are more numerous where they have learnt to cultivate the soil, and this the barbarous Mataco has never taken the trouble to do. When he finds no further means of support, he just moves on, even if he must fight inch by inch for the new hunting ground.

A total absence of religion amongst the Chaco Indians is remarkable, since the tribes of the Andes had, we know, so many Deities. The Chaco Indians have neither idols nor fetiches. They believe, nevertheless, in the existence of the soul

(*aoot*), which according to Mr. Pelleschi * they think wanders miserably if the deceased has died away from his home, whose bones are not at rest in his own hunting ground. In the case of a death they are therefore very careful of the remains, they hollow out the trunk of a living Yuchan tree, and place the corpse inside, not forgetting fruits and water for the use of the spirit (or its mourners?) Or else, they place the body in the branches of the trees, and when the carrion birds have picked clean the bones, guard them in their own *idos*.

"Cruelty", says Mr. Pelleschi, "is the exclusive privilege of religion †," so he expects to find very little of that either in the Chaco. (?) He points out that an absence of religion corresponds of course to an absence of human sacrifice. Nor can I discover that the Chaco Indians are cannibals, although one native assured me that they would eat the flesh of a *white* man, but this is not confirmed. It is certain however that they kill their prisoners of war, and mutilate the dead bodies of their enemies, carrying the head away with them to be used as a drinking-cup! in the subsequent orgie.

* Eight months on the Gran Chaco.

† ? Idlatry.

The orator of the tribe made a long speech to us in a language that appeared to be monosyllabic, and a pause between each word, long and tedious, like listening to a small child counting or repeating a lesson by heart. The tide of civilization, "he said," was ever moving nearer, and driving them farther and farther into the territories of their mortal enemies the Tobas. Whither should they turn? Or what new territory could they acquire?

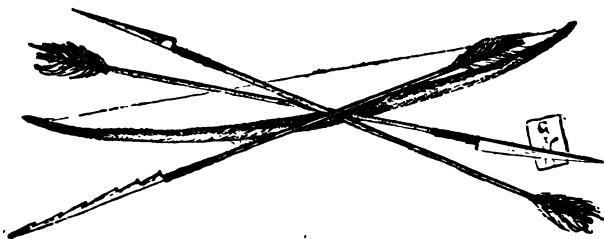
*"The sons of the wood never plunge in the flood.
That the white man calls his own."*

He told us that they were in fear of soldiers scouring the opposite bank of the river, and we afterwards heard that a large body of Indians (several hundreds) had killed a settler, and his servants, and attacked a fort of ten soldiers at Marcos Paz, killing four. It was probably a punitive force from Rivadavia that they were afraid of, and they will, I expect, get little mercy if discovered, even though not the authors of the outrage.

Being short of oarsmen we arranged with the Cacique Moro-Moro for three Indians to accompany us on our journey—"Prisoners" Clunie calls them,—and then we tried to assure the friendship of the tribe by gifts of shirts, ponchos and bead necklaces, for they are easily pleased with bright colours, and worthless trinkets.

In the Chaco Indian, more so even than in the Australian 'aborigine, we see an ungarnished representative of the 1st stone age, a representative of a human race that has maintained itself for perhaps 100,000 years without intellectual improvement. And I felt, as I left, that I had seen beings removed in but one real degree from the brute! creation;—a degree constituted by their fishing nets, and their wooden lances. They are able to comprehend neither quality, nor quantity * beyond what they actually see before them. Their natural desire to possess is accompanied by a fierce instinct to defend what they have already acquired, battle is their inevitable ill, and victory is their only exultation.

* It is asserted by several writers that the Chaco Indians cannot count beyond four.



CHAPTER VII.

NAVIGATION OF THE TEUCO (Cont.)

(TIGERS)

April 5th. We have seen no less than twenty-seven tigers, (properly Jaguar), in three days. How can so unusual a number be accounted for? The land on both sides of the river is low and sandy, covered with pampas grass (*cortadera* GYNERIUM ARGENTEUM) and *caña-brava*, a tall, pretty fern-like reed.—It is true that this locality of reedy marshy ground may be favorable for them but I think I have a better reason. We should now be at a point where the territories of the Mataco Indians, and the Toba Indians meet. I have already stated that these tribes are engaged in constant warfare. It is probable therefore that neither frequents, or hunts the district. "The South American tiger", says baron Humbolt, "when not extremely pressed by hunger, withdraws from the place where he does not reign unmolested,—men put him out of humour." So he has chosen this desolate region for his own.

We have travelled five hundred miles, and never caught sight of one, although we have continually seen his tracks and foot-prints. It is only at this lonely, dreary, uninhabited part of the river, that we find him gazing wonderingly at the boats. He has seldom seen man before, and never feared him. He will learn a lesson now from our rifles that he will not forget, and persons following us will probably see fewer; for a similar instinct to that which teaches a flock of pigeons to fly higher, when one of their number is brought down, will be transmitted to each individual of the district; the tiger henceforth will appear with caution, he will keep closer cover, and consecutive travellers will, as I say, see *fewer*, although the actual number of animals will remain the same.

Everybody, of course, is anxious for a skin, and a perfect fusilade greets an appearance.—In spite of our ten thousand cartidges we shall have to be careful of them if this is to last.—The tiger breaks into a run, — suddenly it turns a somerset, — staggers a few steps farther, and then sinks to the ground.

The nearest boat effects a landing, and the crew surround the wounded monster. It is a weird sight upon the sandy ridge, a little knot of men round the dying animal that is,—struggling to rise,—lifting its head high,—glaring and growling

at its slayers, while its life blood is pouring out around it; and then,—someone steps forward, and despatches it with a blow from the back of a heavy axe.

Next we quarrel as to who shot it. All who fired; (or thought they did), claim it; and eventually it has to be appropriated to the expedition in general. I was much struck at the great strength that seemed to be contained in the short necks, thick legs, and full bodies, of the specimens. One we killed was eating a monstrous spotted fish, five feet long called Surubi. We carried it, (the fish), away with us for our evening meal and enjoyed it immensely. Some of the more enterprising members of our party indeed suggested that we should capture a tiger alive (!) and take it along with us for fishing purposes, but the idea was dismissed as impracticable. It puzzled me at the time, as to how the tiger could possibly have captured a fish of such a size, but I have since noticed that these fish lie at the very edge of the water, and thus the tiger stealing up is able to secure them with a blow of its powerful paw. I do not know either, if the story can be true of their splashing gently on the water to attract the fish towards them? When this particular tiger was first seen it retreated towards the long rushes in the rear, but on being wounded in the leg, turned, and made

for the water which indicates the water its *real* * refuge. There it stood growling, and at bay, and had no less than six bullet wounds when secured.

I have since seen one helpless with two bad bullet wounds, knocked repeatedly on the head with a heavy axe, and then come to life again in the boat, where it had to be despatched with a revolver; and I think, since they die so hard, it must be both dangerous and difficult, for one man alone to try to kill a South American tiger.

We encountered, once, what appeared to be dangerous rapids, but all got through safely; for the water luckily was deep, and the place soon past. But the risk had been never-the-less considerable, for there was no turning back once in the torrent, a shallow place must inevitably have wrecked us, and, the boats lost, a long tramp through the boundless Chaco would have been our lot, with thirst, starvation, and sickness, to dog our footsteps. Even that unlucky boat No. 4 got through all right, but paid for it directly afterwards when her steersman was knocked into the water by the handle of the steering oar;—she

* "Wherever they are," says Darwin, "they seem to require water."

became unmanageable; and ran heavily into the cliff. Luckily she found a soft spot, and escaped being broken up, but shipped enough water to considerably damp the ardour of her crew.

April 6th. To-day we stopped for breakfast near an Indian canoe, lying on the left bank of the river. We saw another one farther down, and the two Indians it contained disappeared quickly into the reeds. We had seen columns of smoke all day: there where probably more Indians near, so we kept on the look out. Later on, evidently having made sure that we were *not* soldiers, four or five stole up and spoke to us;—they were Tobas! much to the terror of our three Matacos, who hid themselves away in the boats from their mortal enemies. I had been anxious to see a Toba, having heard that the Tobas were much the finest tribe in the Chaco, and I was not disappointed;—his fine proportions seemed to me type of the Attic God, and I wondered whence came the progenitors of such a people, or are they the remnant of a race once great in the heart of South America?

It is strange that one tribe should be infinitely superior to another tribe, living in close proximity to it, and under the same conditions; but the fact occurs over and over again in savage countries;

where the solitary "survival of the fittest," amongst tribes devoted to war and massacre, can only be prevented by some natural scourge.—"Like all dominant tribes in Africa however," says Captain Lugard, * referring to the dreaded Massai blacks of Uganda, "their supremacy is not absolute, and the loss of their cattle by plague has tamed their arrogance, and largely deprived them of their means of subsistence."

Has the Toba arrived at his physical excellence, or has he merely maintained it? Is the Toba related to the Matabele?—I think that he is rather an originally invading force from the mountainous regions; but the question is one of ethnological discussion.

In the meanwhile he preserves his social superiority in the Chaco. He wears a plaited band round his forehead, and huge blocks of wood † in each of his ears,—a primitive earring, (we have never thought our own ladies barbarous.)

* Rise of our East African Empire.

† Sir Richard Burton describes pieces of cane in his "Lake region of Central Africa," worn by certain African tribes, though the lobes of the ear, looking like "handles to their heads."

The natives of Borneo use the distended ear-lobes for carrying all sorts of odd articles.

We gave them shirts, ponchos, and tobacco, according to our custom. We tried to make them understand that goodwill on their side would be reciprocated, and even rewarded, on ours; and then we continued our journey.

All this time we have been suffering terribly from the mosquitos. Last night was torment;—They came in clouds, the tents were like hives, and even our nets seemed useless. I rolled myself up in a blanket, head included, preferring suffocation, but they were crawling in all the clothes. That morning there was no need for Mr. Smyth to march round the camp shouting. "Get a move on." Long before 4 a.m. we were all wandering about like the uncomfortable shades of the "raging" Styx.—No one had slept an hour, and even our Matacos were suffering, which surprised me, as I had been told that mosquitos "do *not* bite Indians." "In South America insect life abounds,"—and I felt forcibly the truth of the maxim. We had just escaped the garapatas, a Jujuy woodtick a quarter of an inch in diameter, which buries itself into one's skin,—and now,—it was sandflies, gnats, and mosquitos, in batallions, regiments, and armies.—The only cure * is a gentle

* The Doctor had tried a weak solution of Carbolic acid for the face and hands; but it was useful only till the liquid dried, during the ten or fifteen minutes in which we ate our evening meal.

breeze, which drives them away, but to return again, alas! with increased voracity, when it ceases.

CHAPTER VIII.

WE RE-ENTER THE BERMEJO

April 7th. Last night Captain Zorilla had startled us by insisting that we had left the Teuco, and re-entered the Bermejo.—It was impossible? When then had we passed the junction? Never-the-less he insisted. “To-morrow”, he said, “we shall reach the fort at Presidente Roca, and are now within eight days of Corrientes.” This was news indeed, and we continue our way in great expectation.

Towards evening a sudden hurricane (*pampero*) comes on, and we have to exert all our strength to get the shelter of the shore; the trees are bending with the blast, and before we can make fast, we are obliged to cut down several trees threatening to fall and crush the boats. Getting into shore is at all times a difficult task, owing to the strength of the current, and the roots and branches hanging from the banks. The first boat to tie up is as likely as not to be rammed by the second, and Mr. Smyth in boat No. 4 is the general terror. He comes up like a hurricane.

Woebetide the boat that gets in his way.—But he always uses his *own* portmanteau as a fender, so no one suffers individually.

I notice the forest trees to be of greater size, I notice the valuable hardwoods — Quebracho, Pacara, Moro, and Urunday, already referred to.

If the forest scenery is fine now, in autumn, what must it be like in early spring, when bright blossom bursts out in the sombre shade, when a thousand brilliant hues clothe the trees, when fragile creepers spread from branch to branch, and the whole air is filled with perfume of flowers. We have heard the cry of Turkeys (*Pavo del monte*), and of wood-pheasants (*Charata*), and our sportsmen have bagged a number. Troops of river wolves (*Lobo LUTRA PARANENSIS*) are sporting in the current; their small bobbing heads are no easy mark for the rifle. We have also seen herds of wild pigs, peccaries, on the shore. It is well-known that these animals must always be approached with the greatest caution, for they will charge a man at sight, even without having been provoked. Escape is almost impossible, and refuge in a tree no safety, for they will surround it and try to *uproot* it with their tusks *.

* This statement may perhaps have arisen from their habit of ploughing up the ground with their tusks when enraged.

On one occasion we heard a great noise of growling and grunting on the bank, and pulled in, expecting pigs, congratulating ourselves on roasted pork, but we found monkeys! Some were black, and some were yellow, and all had the long prehensile tail common to the new-world genera. They belonged to the family CEBIDAE and the genus Howler.

Nor was it until we arrived in this part of the river, that we saw the tapir; (*anta*) although there are many of these shy animals in the Chaco. The one we saw was swimming across stream, and, as it climbed the bank, presented a target to our rifles that was taken advantage of; but the body was unfortunately lost in the current, and we were unable to get the skin,—valuable on account of its great thickness, for heavy harness, and other leather goods. Nor must I forget the huge python (*Lampalagua*) coiled at the edge of the water; the river Paraguay is the cradle of these monsters, which attain so great a size as to be able to attack, and devour, a full-sized deer. Mr. Waterton, the naturalist, tells of one killed in Guiana with a pair of Stag's-horns sticking out of its mouth. "The snake," he says, had swallowed the stag, but could not get the horns down, so he had to wait in patience with that uncomfortable mouthful, till his stomach digested the body, and then the horns would drop

out." * The same day I saw another one swimming across the river. Like the fateful serpents of Laocoon's portent, who—"smoothly swept along the swelling tide;"—it moved very rapidly, on the surface, with the same sort of side motion that is used on land.

In the meanwhile the river is becoming exceedingly tortuous, and cannot be more than 80 or 90 yards in width. Cliffs 20 to 25 feet high begin to flank the sides, and, as the river is now swollen 6 or 8 feet, normally the cliffs must appear higher still. They are composed principally of *Tosca*, a sandy tertiary formation so easily undermined by the action of the water, that great masses keep falling suddenly down, and we must be careful to keep the boats a safe distance from the shore. The tendency of the current is, I notice, generally to eat into one bank of the river only, and this, I think, may account for there often being cliff *on one side only*, for, as the water eats into one bank, it recedes from the other, leaving a low shelving shore.

April 8th. This afternoon we are surprised at seeing a zinc roof appear upon the cliff.—Boat No. 1 is putting in to shore.—A man is descend-

* Wanderings in South America.

ing.—It is a soldier, for now we catch sight of his red military cap. Captain Zorilla was right after all. This is an outpost fort, Regiment 12.—Fort Presidente Roca is but two leagues further on,—All doubt of our position is at an end. The allowance of biscuits is forthwith raised from 3 to 4 per day, and we eagerly discuss the advisability of opening various casks of provisions,—oatmeal, flour, vegetables, etc., held in reserve. But what of the old river Bermejo? When did we pass the junction?—It has disappeared. A small stream, and chain of lagoons marks its former course and the Teuco is now the *only* navigable water-way.

At Fort Presidente Roca we found a sergeant and ten men, who, like true sons of Argentina, refused to allow themselves to be betrayed into absolutely any surprise whatever at seeing a fleet of five boats arrive at the fort—a sight never witnessed on the river before—indifference is a native quality. “Last month,” said the sergeant, a Captain and forty men had engaged three hundred Indians in the neighbourhood, and killed sixty or seventy with a casualty of only one soldier wounded on their side. Both women, and children had been killed in the volleys—“It could’nt be helped,” he said, “owing to their custom of remaining with the men when fighting.” The Indians had drawn the punishment upon themselves by

some theft of sheep or horses from a neighbouring farm. On such occasions they are fired at, at sight, and this warfare must in time lead to as complete an extinction of the Indian tribes in the Chaco, as has already taken place in the {southern pampas of this Republic.

April 10th.—I see fine open plain dotted with Ceibo, a species of cotton tree, on either side of the river, and I am surprised that the colony at Azara should have proved a failure. We found machinery lying about, choked with grass, and caught sight of the deserted buildings in the distance. It was the old story, money had failed, and the starving colonists, some two hundred in number wrecked the place, (we even saw the safe lying where they broke it open), and then dispersed, those in charge having escaped in a canoe to Corrientes.

April 11th.—At mid-day we arrive at the village of Uriburn, having passed the estancia of the distinguished officer of that name (Governor of Formosa), on the opposite bank. There is good stag shooting in this neighbourhood, they tell us, and many tigers. Here I first noticed the roofs of the huts made of Palm-tree bark, which is cut into regular lengths, and used like tiles.

It was near this place too that I again noticed a remarkable stratum of black vegetable earth appear-

ing at the foot of the cliff, about 20 feet below the surface. I had seen the phenomenon on several occasions before, and suppose that this stratum must have been, quite lately, the original surface of the Chaco, the sand and tosca above being only of exceedingly recent alluvial deposit. I also took samples of a white argillaceous substratum (*kaolin*) from the same place, and do not doubt that the near future will find it the site of large pottery works.

April 13th —Yesterday we passed the Island of Ñacurutu,—a spot with magnificent forest scenery, and to-day we reach a locality called Palmeyra where innumerable tall palm trees cover the plain. The species (*COPERNICIA CERIFERA*) yields a vegetable wax, collected in drops beneath the leaves, but is of more value for the making of telegraph posts, and the house-roofing already referred to.

April 14th —We are now about 4 leagues from the junction of the Bermejo with the Paraguay. We have chosen a suitable place, and are going to remain a couple of days, in order to clean up the boats, and prepare for Corrientes. Mr. Leach and Captain Bolland have gone on in boat No. 1 to make arrangements for our arrival. The plain is

deep in water after heavy rain; innumerable ant-hills * two feet high, cover the ground, and no one is energetic enough to start off on the shooting expeditions we had planned. So we sit and mix drinks instead—recount our hardships, and all vow that we will make no more expeditions. At night we have a grand concert. Everybody has to sing or recite something—and bring his cup with him, (we began with a lecture on temperance). Everybody—that is to say except our adjutant; he spoke of expeditions cut to pieces in sight of home, he told us of whole armies lost in the flush of victory; he shouldered his rifle, stuck his revolver into his belt, and marched round the camp in lonely glory—on sentry duty—ha ! ha !

* In his lecture on the Chaco Boreal at the Royal Scottish Geographical Society, January 1900, Mr. W. B. Grubb expressed his opinion that the only profitable industry in the Chaco Boreal would be cattle-rearing.—"Agriculture," he said, is hindered by the ants, locusts, and other insects, and the drought.

Mr. A. S. Pennington in his book 'La Langosta Argentina,' condemns the theory of the Chaco being the "permanent breeding ground" of the locust. The migration of the locust, he says, is not like that of the swallow, that returns year after year to build its nest in the same place; but rather like that of the human race, that spreads slowly and surely, and establishing itself where ever seems most suitable.

CHAPTER IX.

*My task is done . . .
 . . . my theme
 Has died into an echo.*

Childe Harold,

At six o'clock on the morning of the 16th we were off, and at ten we entered the waters of the river Paraguay. We landed for breakfast at the junction. It was a spot so thick with rich rank sub-tropical growth that we could scarcely force a passage through in any direction. Mr. Smyth obtained some fine specimens of orchids to carry back with him to his garden at San Lorenzo, and also some flowers of the magnificent *Victoria Regia*. I saw a small wild orange-tree in the same place, and a variety of bamboo (*tacuaru* BAMBUSA NEGRA) ten or fifteen feet high, the stem of which contained the clear fresh water in each of its compartments, so precious to the traveller of the Brazilian forest.

A very short rest gave us renewed energy, and two hours later we arrived at the little Argentine Port of Timbu.

A boat shot out from the landing-stage and the Port Captain called upon us to lie-by, but our papers satisfied him, and a few minutes later we landed on the shore.

First we trooped off to the nearest store, "All we want is new bread" (we had almost forgotten the taste of it). The owner thought we were *Inglese locos*, and he humoured us. Then we walked up to the open space on top of the hill behind the Church. Those who have themselves been away for a long time know the pleasure of returning to a town, each stranger seems an old friend, and the barest idea of an altercation impossible. It happened to be a holiday and we listened to the people quarrelling over their impromptu horse-races. Any other time we should have objected to waiting several hours for the first race to begin, and then, having to witness ten or twenty false starts, but now it was different, patience is, as I have said, an Argentine virtue, it was the habit of the country, so we rolled up some more cigarettes, and enjoyed ourselves thoroughly.

April 17th.—Corrientes is but eleven leagues further on. If possible we will reach it to-night. We agree to forego the usual hour of luncheon and

lay in a quantity of sardines and cheese to eat at our oars. We fly past the little Paraguayan port of Humaitá, with its orange groves and its Jesuit ruins. All day we stick to it. At noon we see the river widening. A boundless expanse of water to the north-east tells us that we have reached the Parana, and then,—we catch sight of the spires and pinnacles of Corrientes on the uncertain mirage of the horizon. It has been a long pull but it is the last, and towards evening we drop wearily into the still water of the little creek behind the mole—home.

So our journey is ended, we have been away forty-four days, and have traversed a waterway of nearly a thousand miles through the heart of the mysterious Chaco. It is true that we had difficulties of navigation at the commencement of our journey, but these difficulties were entirely confined to the river San Francisco. The Teuco-Bermejo itself, we found to be a fine river, free from obstruction, and a river suitable throughout for the transport of the produce of the rich country in which it has its source. That we were not interfered with by the Indians, I attribute to our rapid passage (30 or 40 miles a day) and, to the flood season of the river, which had obliged them to retire to the lagoons inland to fish. "Don't go back," was the advice of a Correntino to me, who had spent

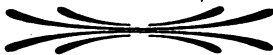
many years in the southern Chaco "They'll be expecting you now, so don't go back". I pictured, the disappointed Indians waiting for us along the shore, I told him it had never been our plan to return that way,—and he seemed happier. "The Chaco Indians," he said, "were actually more dangerous now than formerly, owing to their possessing some fire-arms, and to their being continually pressed by Argentine military forces."

If we have had no thrilling adventures, we have had hard-work and hardships. Every man in the expedition did his share of the work—and did it well. Mr. Leach's foresight, and untiring attention to our needs, sustained us, and Mr. Smyth's energy and enthusiasm carried us through.

If any one person in particular indeed should have the credit of the despatch of the expedition it is Mr. Smyth. It was Smyth who turned us out on the dark mornings, and Smyth who hurried us along all day,—fearless and unselfish —"*Palmarum qui meruit ferat.*"

The Messrs. Leach have proved the navigability of the river Teuco-Bermejo by a brilliant and an expeditious passage. The Messrs. Leach have shewn a water-way to the "Havannah" of the Argentine Republic, and have paved a way to the richest corner of a rich land.

.. Two months later, in the month of July, 1899, a measure was introduced into the Argentine Chamber of Deputies by Sr. Perez, on behalf of the inhabitants of Jujuy, asking that a practical acknowledgment * to the extent of \$ 50.000 should be voted to the Messrs. Leach. "If at any time," he said, "the faculty possessed by the chamber is a proper one, and worthy to be applied under favourable circumstances of granting these recompenses as a stimulus, it is on the present occasion in which individual initiative, and private resources, yielding to patriotic inspiration in favour of our country, have realized an enterprise which has proved the practicability of river communication both easy and economical, that will give an outlet to the rich and varied products of the northern province of the Republic, and especially of that zone of privileged soil washed by the River San Francisco, respecting which the President of the Republic has said that it is the Havana of our country, as being the most adapted for the cultivation of agricultural products of great importance, such as coffee, rice, sugar-cane, cotton and cocoa."

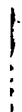


* No acknowledgement has, as yet, been made to the Messrs. Leach by the Argentine Government.

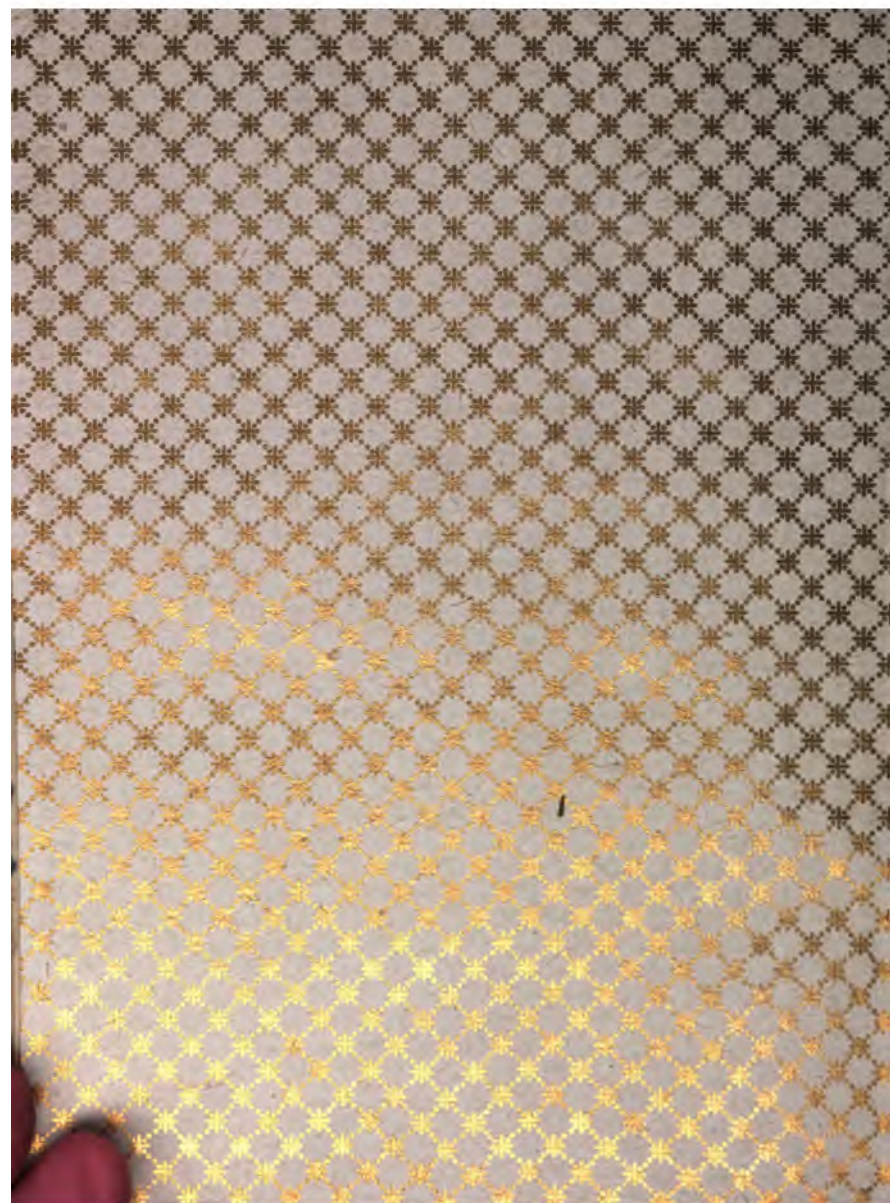
*Farewell companions of the ruddy stream
That wanders by the dreary woodland shore
Again I see you toiling, and I seem
To hear the steady clinking of the oar
That ever bears us onward,—till before
We see the beacon of our haven gleam.*

Farewell.





[The body of the document contains extremely faint, illegible text, likely bleed-through from the reverse side of the page. The text is organized into several paragraphs, but the characters and words are not discernible.]



F 2876 .D6 C.1
A short account of the Leach B
Stanford University Libraries



3 6105 035 848 295

F
2876
.D6

STANFORD UNIVERSITY LIBRARIES
CECIL H. GREEN LIBRARY
STANFORD, CALIFORNIA 94305-6004
(415) 723-1493

All books may be recalled after 7 days

DATE DUE

SEP 29 1998
OCT 0 1998 *u*

